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THE DESCRIPTION OF THE INVENTION
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others).

(54) The method of getting the gun ready for the action and the holster (the options)

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(57) The invention relates to the means for carrying small arms. The essence of the method is in the usage of the holster with the slot (groove) made for the grip of the pistol. In the process of rectilinear pushing the pistol through in the holster, switching the safety lock into the position of the readiness for the action is carried out simultaneously. The essence of the design of the holster is in providing the case with the guides for the slide, the unit for switching over the safety lock and spring-loaded latch of the slide stop of the pistol. The unit for switching over the safety lock is on the lateral wall of the case from the side of location of the safety lock of the pistol and it is made in the form of spring-loaded fork, and the above mentioned latch is made in the form of cantilever plate with the stop installed with the possibility of interaction with the slide stop of the pistol and with the flag of the safety lock while switching it over. According to the second option the unit for switching over the safety lock is performed in the form of a figured window as a one-sided trapezium on the lateral wall of the case. The means to fix the pistol is made in the form of spring-loaded latch as a plate, fixed with the possibility of deviation of it by the pistol when placing it in the holster and interacting with the base of the flag of the safety lock. On the other wall of the case in its base, a supporting protuberance for the pistol frame is made symmetric about the mentioned figured window. Its length is more than maximum size of the figured window. Realization of the group of the inventions allows reducing the time of getting the pistol ready for action.

The inventions relate to safe-guarding equipment, namely to the individual small arms, in particular to the means of carrying them, and can be used to place various systems and sizes weapons on the different parts of the body both using the carrying straps and without them.

A common method of getting the pistol ready for action requires the following actions to be performed: getting the pistol out of the holster, removing the safety lock, drawing off the slide with the help of the other hand to send the cartridge from the cartridge clip into the cartridge chamber. It involves two hands and takes a long time.

A method of getting the pistol ready for action with the help of only one hand is known and it is taken as a prototype. It includes the shift of the barrel of the pistol with respect to the sliding element (the slide) in the holster, which contains the case with the blocking device, which in its turn contains supporting element with actuating lever and fixing lever for the slide stop (see the description to the patent N 2150648 "The device for protecting and getting into the firing order of the portable fire-arms" from 05.06.95, p.9). The muzzle of the arm is placed on the fixing lever, the grip of the arm is put in the direction of the fixing lever to shift the barrel and to fix the hole for throwing away the cartridge shell on the arm at the level of the actuating lever, which is inserted through the hole for cartridge shells into the cartridge chamber then. Thus, the arm is fixed in the blocking device between the actuating lever at the cartridge chamber and the fixing lever at the muzzle. To get the arms ready for action, at first the grip of the arms is pressed to the fixing lever, making the clearance for the actuating lever to go out of the cartridge chamber, then the arm is inclined to extract the actuating lever out of the cartridge chamber. After that the grip is kept pressed to the fixing lever to shift the barrel to open the cartridge chamber completely to send the cartridge into it. Then the arm is taken out of the holster.

The safety lock must be removed before setting the pistol in the holster.

Such method of getting the arms ready for action requires carrying out complicated curve trajectory of the hand movements, which increases the time of preparing the arms and requires careful mastering movement coordination. In the proposed design of the holster it is impossible to fix the pistol when the cartridge is in the cartridge chamber, which must be removed before setting the pistol. The cartridge chamber is open and it is possible for strange things to get into it. Recoil spring of the slide and the spring of the hammer when keeping the arm in the holster is constantly in the pressed state, which after all reduces the reliability of the pistol.

The technical task of the offered inventions is reducing the time of getting the pistol ready for action when taking it out of the holster with the help of only one hand.

The mentioned task is solved in such a way that in the known method of getting the pistol ready for action with the help of one hand by shifting the barrel of the pistol about the slide in the holster, containing the unit for slide stop until the cartridge chamber is completely open and the cartridge is set into it, according to the invention switching over the safety lock and shifting the barrel is realized by rectilinear pushing the pistol through in the holster with the groove made for the grip of the pistol and the means for switching over the safety lock.

Two options of the holster are offered to realize such method of getting the pistol ready for action with the help of only one hand.

According to the first option, a holster for the pistol is offered which contains the case. According to the invention, the case in its base is provided with the guides for the slide, it has in its cross section a shape of an arch with formation of through groove for the grip of the pistol and to provide advancement of the pistol in the case to get it ready for action while taking it out of the holster. At the end of the case, at the front cut of the barrel there is a hole made for the barrel. Moreover, the case is provided with the means to switch the safety lock over in the form of spring-loaded fork and spring-loaded latch in the form of a cantilever plate with the stop for the slide stop to rest on the lug and the possibility of interacting with the flag of the safety lock while switching it over. They are made on the lateral wall from the side of the safety lock.

In addition to that the frame can be provided with the stop of the reverse movement of the fork.

There is a hole made to throw away the cartridge in the central part of the frame on the lateral side, in the area of the pistol where the hole to throw away the cartridge case is located.

The holster can be supplied with the element to fix it on the belt.

When the pistol is being taken out of the holster by the short movement of the hand forward-backward, the pistol is freed from fixing, the safety lock is taken off and sending the cartridge into the cartridge chamber takes place.

According to the second option, a holster for the pistol is offered which contains a case. According to the invention, the case in its base is provided with the guides for the slide, it has in its cross section a shape of an arch with formation of through groove along the case for the grip of the pistol and to provide advancement of the pistol in the case to get it ready for action while it is taken out of the holster. At the front end of the case, on the lateral wall from the side of the safety lock there is a spring-loaded latch made in the form of a flat plate with the possibility of turn along the direction of the movement of the pistol and there is also the means to switch over the safety lock in the form of a figured window in the shape of a one-sided trapezium, and on the other wall of the case in its base from the inner side there is a supporting lug for the frame of the

pistol made symmetrical about the figured window, the length of the lug exceeds the maximum size of the figured window.

The corners of the figured window and the lug are made round.

In the central part of the case, on the lateral side in the area of location of the hole on the pistol to throw away the cartridge cases, a hole is made to throw away the cartridge.

The holster can be supplied with the element to fix it on the belt.

While pushing the pistol through the holster with one movement of the hand forward, the pistol is freed from fixation, the safety lock is taken off and sending the cartridge into the cartridge chamber takes place.

The offered inventions have a common inventive conception, namely: getting the pistol ready for action when it is being taken out of the holster using one hand. Complete preparation takes place during one cycle by one movement of the hand forward, stretching the pistol through the holster or making movements forward- backward with a hand. When the pistol is taken out of the holster, it is completely ready for the action.

Quickness of getting the pistol ready for action with the help of one hand allows to apply the arms in good time when a sudden attack takes place (guards, body-guards, collectors) and in difficult situations, when the second hand is blocked by the enemy, when it is used to hold something, if it is injured, when driving the car and so on.

The patent research carried out did not reveal similar technical solutions, which allows making conclusion about novelty and inventive level of the technical solutions claimed.

Home industry has everything (materials, equipment) necessary to manufacture the offered options of the holster.

The essence of the offered technical solution is explained with the drawings, where:

In Fig.1 – the pistol in a holster according to the first option (before loading),

In Fig.2 - the pistol in the holster according to the first option (When it is being loaded);

In Fig.3 – the general view of the pistol in the holster is presented according to the first option with a picture of the fork and a latch;

In Fig.4 - a view in Fig.3;

In Fig.5 – a top view at the tooth of the latch;

In Fig.6 – the position of the fork before switching the safety lock over;

In Fig.7 – a view in Fig.6;

In Fig.8 – a position of the fork after switching the safety lock over;

In Fig.9 – the position of the latch before switching the safety lock over;

In Fig.10 – the position of the latch after switching the safety lock over;

In Fig.11 – the general isometric view of the holster according to the second option;

In Fig.12 – the position of the pistol in the holster according to the second option with the picture of the figured window and the latch;

In Fig.13 – the position of the latch and the safety lock before switching it over;

In Fig.14 – a view in Fig.1;

In Fig.15 – the position of the latch after switching over the safety lock;

In Fig.16 – the position of the flag of the safety lock in the window before switching it over;

In Fig.17 – the position of the flag of the safety lock in the window after switching it over;

In Fig.18 – the position of the pistol in the holster (the safety lock is in the figured window);

In Fig.19 - a view in Fig.18;

In Fig.20 – the position of the pistol in the holster (the frame has gone off the lug of the stoppage and the safety lock went out of the figured window).

The method of getting the pistol ready for action includes:

-switching over the safety lock and

-shifting the barrel about the slide along the longitudinal axis of the pistol to send the cartridge into the cartridge chamber of the barrel.

According to the proposed method, these operations are carried out by means of pushing the pistol through in the holster with the groove made for the grip of the pistol, and the holster is provided with the means for switching the safety lock over and the slide stop till the cartridge chamber is completely open and the cartridge is sent into it.

These means can be made in different ways. The proposed inventions offer two options of the holster. According to the first option the holster 1 for the pistol 2 is a case 3 manufactured from plastic material or duralumin with the element to fix the holster on the belt (it is not shown on the drawing).

The case 3 in the base is supplied with the guides 4 for the slide 5, it has in its cross section the form of an arch 6 with formation of the through groove 7 along the case for the grip 8 to enable the advancement of the pistol 2 in the case 3 to get it ready for action when it is being taken out of the holster 1. At the end 9 of the case, at the front cut of the barrel 10 there is a hole 11 made for the barrel 9. The case 3 is supplied with the means made on the lateral wall 12 from the side of the safety lock 13 to switch the safety lock in the form of the spring-loaded fork 14 and with a spring –loaded latch 15 in the form of the cantilever plate 16 with a tooth 17 for the slide stop of the lock 18 to rest upon the lug and with the possibility of interaction with the flag 19 of the safety lock 13 when it is being switched over. Spring-loading of the plate 16 of the latch 14 is made by free tail 20 of the spring 21, set on

the axis 22 of the fork 14. The case 3 is supplied with the stop 23 of the reverse movement of the fork 14, which is a lug on the case 3 of the holster 1.

In the central part of the case 3 on the lateral side in the area of the location of the window on the pistol to throw the cartridge case, there is a window made to throw away the cartridge, in case there was a cartridge left in the cartridge chamber (it is shown on the holster according to the second option).

Getting the pistol 2 ready for action and taking it out of the holster 1 according to the first option is carried out in the following way. When putting the pistol 2 down into the holster 1 and when advancing in it forward because of the pressure of the hand, the flag 19 of the safety lock 13 runs against the fork 14 and produces the pressure on the front horn 24. Rotating on the axis 22 the fork 14 presses on the flag 14 of the safety lock with the back horn 25, causing its switching over into the mode of the readiness for action. The spring 21 serves to return the fork 14 in its initial position. The plate 16 of the latch at the time of putting the pistol 2 down into the holster 1, turning round on the axis fixed on the inner wall of the holster 1, let it in and the tooth 17 of the latch 15 jumps behind the lug of the slide stop 18, making the pistol 2 fixed. After switching over the safety lock 13 into the mode of the readiness for action, the flag 19 of the safety lock 13 goes down and affecting the plate 16 of the latch 15 brings its tooth 17 out of the engagement with the lug of the slide stop 18, releasing the pistol 2. To send the cartridge further out of the charger (or magazine) into the cartridge chamber by the pressure of the hand, the pistol 2 is advanced forward, the barrel 10 of the pistol 2 goes into the hole 11, and the lock 5 of the pistol 2 is supported by the end 9 of the case 3. After that the pistol 2 is taken out of the holster 1 by one movement of the hand backwards. The proposed design of the holster allows by a short movement of the hand "forward-backward" to get the safety lock 13 in the position "ready for action", to perform sending further the cartridge out of the charger (or magazine) into the cartridge chamber and to take the pistol 2 out of the holster 1.

According to the second option, the holster 26 for the pistol is a case 27 made from plastic material or duralumin with the element to fix the holster on the belt (it is not shown in the drawing).

The case 27 in its base is supplied with the guides 28 for the slide 5, it has in its cross section a form of an arch 6 with the formation of the through groove 7 along the case 27 to push the pistol through the case 27 when taking it out of the holster 26. At the front end of the case 27, on the lateral wall 29 from the side of the safety lock 13, there is a spring-loaded latch 30 made with the possibility of its turning according to the movement of the pistol in the holster 26. The latch 30 is made in the form of a flat plate 31. The

safety lock 13 and the latch are made on the same line, which is parallel to the longitudinal axis of the case 27. On the same lateral wall 29 of the case 27 there is a means made to switch over the safety lock in the form of a figured window 32 in the form of a one-sided trapezium (a figured window 32 with a tilted lateral side 33). On the other side 34 of the case 27 in its base from the inner side symmetrically to the figured window 32 there is a supporting lug 35 made for the frame 36 of the pistol. The length of the supporting lug 35 is more than a maximum size of the figured window 32. The corners of the figured window 32 and the lug 35 are rounded. In the central part of the case 27 on the lateral side in the area of the location of the window on the pistol to throw the cartridge cases away there is a window 37 made to throw the cartridge away in the case there was a cartridge left in the cartridge chamber.

Getting the pistol ready for action and taking it out of the holster 26 according to the second option is done in the following way.

When putting the pistol into the holster 26 the plate 31 of the latch 30 deviates according to the direction of the movement of the pistol, letting it into the holster 26, and at the end of the movement rests against the base of the flag 19 of the safety lock 13, preventing the movement of the pistol backward. The pistol turns to be fixed in the holster 26. At the further movement of the pistol (at the moment of switching the safety lock over) the plate 31 of the latch 30 is released and occupies the neutral position. Having such a position of the latch 30 the pistol can be easily taken out of the holster 26.

When the pistol is in the holster 26 it is safely fixed on the first stage from one side with the tilted lateral side 34 of the figured window 32, against which the flag 19 of the safety lock 13 rests. From the other side it is fixed with the lug 35 which rests against the frame 36 of the pistol. When pressing the grip 8 of the pistol, the advancement of the pistol forward takes place. The flag 19 of the safety lock 13 runs onto the tilted lateral side 34 of the figured window 32, which turns the flag 19 of the safety lock 13 down switching the pistol over into the position "ready for action". After the safety lock 13 is switched over, when the pistol advances forward at the moment of loading, the slide 5 remains in its place, because it is held with the figured window 32 and the frame 36 moves forward. At the limiting position, when the cartridge has already been caught with the lug 35, the frame 36 will come off the supporting lug 35 and the slide 5 of the pistol will get the possibility to move to the right and go out off the figured window 32 and, moving by the effect of the spring to send the cartridge further into the cartridge chamber.

The suggested design of the holster allows by short movement of the hand toward one direction to get the safety lock into the position "ready for a action", to send further the cartridge

out of the charger (or a magazine) into the cartridge chamber and to take the pistol out of the holster.

The authors have manufactured specimens of the proposed options of the holster. The tests showed good results concerning the speed of taking the pistol out of the holster in any position (standing, sitting, lying) and its location on different parts of the body both using the carrying straps and without them, which allows to wear the holster on the waist, on the leg, on the chest, under one's arm.

THE FORMULA OF THE INVENTION

1. The method of getting the pistol ready for action with the help of one hand, including rectilinear pushing through the pistol, placed in the holster, with shifting the barrel of the pistol about the fixed in the holster slide till the cartridge chamber is completely open and taking the pistol out of the holster, distinguishing that they use a holster with a groove made for the grip of the pistol, and at the time of rectilinear pushing through the pistol in the holster, switching over the safety lock into the position "ready for action" takes place in addition.
2. The holster for the pistol, which contains a case, made in its cross section in the form of an arch, and at the end of the case at the front cut of the barrel there is a hole made for the barrel which differs with the fact that the case is equipped with the guides for the slide, the means to switch the safety lock over and a spring-loaded latch of the slide stop of the pistol, the means to switch the safety lock over being located on the lateral wall of the case from the side of the location of the safety lock of the pistol and is made in the form of a spring-loaded fork, and the mentioned latch is made in the form of a cantilever plate with the stop set with the possibility of interaction with the slide stop of the pistol and with the flag of the safety lock when it is being switched over, moreover, along the case there is a through groove for the grip of the pistol with the possibility of its advancement in the case and getting it ready for action when it is being taken out of the holster.
3. The holster according to 2 differs because the case is supplied with the stop of the reverse movement of the spring-loaded fork.
4. The holster according to 2 differs because in the central part of the case on the lateral side in the area of the location of the window on the pistol to throw away the cartridge cases there is a window made to throw away the cartridge.
5. The holster according to 2 is different because it has an element to fix it on the belt.

6. The holster for the pistol, which contains the case, which in its turn has the means to fix the pistol made in its cross section in the form of an arch, differs because the case is equipped with the guides for the slide and the means to switch over the safety lock of the pistol. It is made in the form of a figured window in the form of a one-side trapezium on the lateral wall of the case, and the means to fix the pistol is made in the form of a spring-loaded latch in the form of a plate, fixed with the possibility of its tilting by the pistol when it is placed in the holster and with the possibility of interacting with the base of the flag of the safety lock. Moreover, on the other wall of the case in its base symmetrically to the mentioned figured window there is a supporting lug for the frame of the pistol, the length of which exceeds the maximum size of the figured window. Along the case there is a through groove for the grip of the pistol with the possibility of its advancement in the case and getting it ready for action when it is being taken out of the holster.
7. The holster according to 6 differs because the corners of the figured window are made rounded.
8. The holster according to 6 differs because the corners of the supporting lug for the frame of the pistol are made rounded.
9. The holster according to 6 differs because in the central part of the case on the lateral side in the area of location of the window on the pistol to throw away cartridge cases there is a window made to throw away the cartridge.
10. The holster according to 6 differs because it is equipped with the element to fix it on the belt.